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Title: The SIRTF Telescope Test Facility: The First Year

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Presentation: Oral Presentation

Abstract:
The STTF consists of an optical dewar for testing mirrors of up to 1 m diameter and f < 6 at temperatures from 300K to 5K and a phase shift interferometer for optical characterization. The SIRTI '1 elescope Test Facility (STTF) was brought on line in early 1995. The STTF was initially used to cool a 50cm diameter beryllium mirror that had been previously tested at NASA Ames Research Center. These initial tests validated the performance of the S'1"1 F by proving that the **S'l-l'l"** could cool it mirror to SK and achieve high quality optical data on the mirror, consistent with the previous results achieved at NASA Ames. The S'1 'I has also been used to provide cryogenic optical testing of the ultralightweight 85cm diameter beryllium mirror assembly for the Infrared Telescope Technology Testbed (I'l"l-l'). Currently the facility is preparing for testing the complete ITT 1. Also, the long wave length photon background in the facility will be measured and characterized in 1996.

Key words: Cryogenic optics, SIRTF, infrared

Brief Biography:

Dr. Larson is a member of the technical staff in the Low Temperature Science and Engineering group at the Jet Propulsion Laboratory and is Facility Manager for the SIRTF Telescope Test Facility. She is also developing a Low Gravity Simulator for performing studies on liquid helium.